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EXAMINER
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SHIMIZU, MATSUICHIRO

ART UNIT	PAPER NUMBER
2635	20

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Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/524,804

Applicant(s)

TUTTLE, MARK E.

Examiner

Matsuichiro Shimizu

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 03 December 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 50-52, 54-69 and 71-107 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 50-52, 54-69 and 71-107 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

***Response to Amendment***

The examiner acknowledges currently amended claims 50,54,62,65,66,79 and 82, and new claims 101-107.

***Response to Arguments***

Applicant's arguments with respect to claims 50,54,62,65,66,79 and 82, 84, and new claims 101-107 have been considered but are moot in view of the new grounds of rejection.

Applicant's arguments filed on 11/25/2003 have been fully considered and examiners response is provided as follows:

Regarding applicant's argument (lines 14-20, page 20), the examiner maintains that Walton teaches wireless signals (col. 6, lines 1-53, radio frequency) as claimed in claim 59.

Regarding applicant's argument (lines 13-17, page 23), the examiner maintains that Walton teaches substrate and encapsulant (col. 6, lines 44-53, assembly associated with encapsulated circuitry embedded in substrate associated with plastic mold encapsulated within same plastic which is inactive material) as claimed in claim 71.

Regarding applicant's argument (lines 1-13, page 24), the examiner maintains that Walton teaches encapsulating at least a portion of the communication circuitry with an encapsulant which contacts at least the encapsulated portion of the communication circuitry (col. 6, lines 44-53, assembly associated with encapsulated circuitry embedded in substrate associated with plastic mold encapsulated within same

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plastic which is inactive material wherein portion of antenna rod 216 is encapsulated and rest of antenna rod portion 216 is encapsulated or contacted) as claimed in claim 76.

Regarding applicant's argument (lines 10-17, page 25), the examiner maintains that Walton and MacLellan teach wireless signals (Walton-col. 6, lines 8-23, radio frequency; MacLellan-col. 2, lines 39-52, radio frequency) as claimed in claim 99.

Therefore, claims 50-52, 54-69 and 71-107 are rejected as follows:

***Claim Rejections – 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 107 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. "coupling the backscatter communication circuitry with the at least one antenna in an arrangement wherein the backscatter communication circuitry controls selective shorting of the at least one antenna to

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selectively reflect a continuous wave signal having a microwave frequency to implement backscatter communications" as claimed in claim 107 is a subject matter not described in the specification.

*Rejections – 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 59, 61, 76 and 78 are rejected under 35 U.S.C. 102(b) as being anticipated by Walton (4,782,342).

Regarding claims 59, 61, 76 and 78, Walton discloses a radio frequency identification device circuit (col. 6, lines 1–53, radio frequency identifier circuit 212) comprising: communication circuitry (col. 6, lines 1–53, radio frequency identifier circuit 212) with indicia there on (Fig. 6, PRINTED LABEL surface including barcode (612)); and an encapsulant configured to encapsulate and contact at least a portion of the communication circuitry, wherein the encapsulant defines at least one side surface and the at least one side surface has visibly perceptible information thereon (Fig. 6, col. 6, lines 44–53, the assembly is encapsulated in a plastic rectangular bar (610); Fig. 6, PRINTED LABEL surface including barcode (612)).

*Claim Rejections – 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 60 and 77 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Walton in view of Lebby et al. (5,493,437).

Regarding claims 60 and 77, Walton continues, as disclosed in claims 59 and 76, to disclose a housing comprising thin side surface (Fig. 6, rectangular plastic housing (610)). But Walton does not disclose the housing comprises the at least one side surface has a dimension less than about 100 mills.

However, Lebby discloses, in the art of portable wireless communication device, the housing comprises the at least one side surface has a dimension less than about 100 mills (Fig. 1, casing thickness of 1 MM) to provide smaller and ruggedized

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structure. Therefore, it would have been obvious to a person at the time of invention to include the housing comprises one surface has a dimension less than about 100 mills in the device of Walton as evidenced by Lebby because Walton suggests a housing containing a thin side surface and Lebby teaches the housing comprises one surface has a dimension less than about 100 mills to provide smaller and ruggedized structure.

Claims 99–100 are rejected under 35 U.S.C. 103(a) as being unpatentable over Walton in view of MacLellan (5,649,296).

Regarding claims 99–100, Walton discloses a wireless communication device (Figs. 4 and 6, col. 6, lines 8–23 and 44–53, identifier circuit (212) associated with radio frequency identification device) comprising: a housing (Fig. 6, plastic rectangular bar (610)) including an upper surface, a lower surface, and at least one side intermediate the upper surface and the lower surface and having a dimension less than smallest dimensions of the upper surface and the lower surface, and the at least one side surface having visibly perceptible indicia (Fig. 6, a side surface with written identification along with a bar code (612)) thereon; and communication circuitry (Fig. 6, identifier circuit (212)) within the housing and the communication circuitry being configured to communicate wireless signals. But Walton does not disclose the communication circuitry is configured to implement backscatter communications.

However, MacLellan discloses, in the art of radio frequency communication system, the communication circuitry is configured to implement backscatter communications (col. 1, line 61 to col. 4, line 51, backscatter modulation applies to RFID) to better comply the FCC regulatory requirement. Therefore, it would have been obvious

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to a person at the time of invention to include the communication circuitry is configured to implement backscatter communications in the device of Walton as evidenced by MacLellan because Walton suggests the communication circuitry is radio frequency identification and MacLellan teaches the communication circuitry is configured to implement backscatter communications to better comply the FCC regulatory requirement.

Claims 82, 50-51, 54-56, 58, 66-68, 71-73, 75 and 101 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Walton (4,782,342) in view of Drabeck et al. (5,598,169).

Regarding claim 82, Walton discloses a method of forming a radio frequency identification device comprising: providing radio frequency identification circuitry device configured to communicate wireless signals (col. 6, lines 1-53, radio frequency identifier circuit); coupling a power source (col. 6, lines 1-53, radio frequency identifier circuit energized by varying magnetic field ) with the radio frequency identification device circuitry (col. 6, lines 1-53, radio frequency identifier circuit); coupling an antenna with the rfid device (col. 4, lines 50-65, identifier antenna (214); col. 6, lines 1-53, radio frequency identifier circuit energized by varying magnetic field) providing a housing (Fig. 6, housing (610)); and providing visibly perceptible indicia on the at least one side surface (Fig. 6, printed label along face including barcode (612)). But Walton does not teach wireless signals comprising microwave signals.

However, Drabeck teaches, in the art of wireless communication system, wireless signals comprising microwave signals (Title: Detector and Modulator Circuits for Passive Microwave Links; col. 5, lines 27-41, 2.45 Ghz) for the purpose of providing



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efficient communication. Therefore, it would have been obvious to a person skilled in the art at the time the invention was made to include wireless signals comprising microwave signals in the device of Walton because Walton suggest wireless signals and Drabeck teaches wireless signals comprising microwave signals for the purpose of providing efficient communication.

All subject matters in claims 50–51, 66–68 are disclosed in claim 82, and therefore, rejections of the subject matters expressed in claims 50, 53, 66 – 68 are met by references and associated arguments applied to rejections of claim 82.

Regarding claim 54, Walton teaches a wireless communication device (col. 6, lines 1–53, radio frequency identifier circuit 212 coupled with radio frequency flux) comprising: a substrate having a support surface defined by a perimetral edge (Fig. 6, col. 6, lines 1–53, printed label or indicia on the side); communication circuitry (Fig. 6, col. 6, lines 1–53, radio frequency identifier circuit 212 on the housing) elevationally over the support surface (Fig. 6, col. 6, lines 1–53, radio frequency identifier circuit 212 on the side) of the substrate and configured to communicate wireless signals; and an encapsulant (Fig. 6, col. 6, lines 44–53, the assembly is encapsulated in a plastic rectangular bar 610) elevationally over the support surface and configured to encapsulate (Fig. 6, col. 6, lines 44–53, the assembly is encapsulated in a plastic rectangular bar 610) at least portions of the support surface of the substrate (Fig. 6, col. 6, lines 1–53, inactive support material or plastic rectangular bar 610) and the communication circuitry, and wherein the encapsulant and the substrate respectively define an upper surface and a lower surface and have a thickness less than a smallest dimension of the perimetral edge, and the encapsulant (Fig. 6, col. 6, lines 1–53, housing including indicia on side) includes visibly perceptible indicia intermediate the

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upper surface and the lower surface. But Walton does not teach wireless signals comprising microwave signals.

However, Drabeck teaches, in the art of wireless communication system, wireless signals comprising microwave signals (Title: Detector and Modulator Circuits for Passive Microwave Links; col. 5, lines 27-41, 2.45 Ghz) for the purpose of providing efficient communication. Therefore, it would have been obvious to a person skilled in the art at the time the invention was made to include wireless signals comprising microwave signals in the device of Walton because Walton suggest wireless signals and Drabeck teaches wireless signals comprising microwave signals for the purpose of providing efficient communication.

Regarding claim 55-56 and 58, Walton teaches the device according to claim 54, and furthermore a rectangle shape, the encapsulant contacts at least portions of the support surface and the communication circuitry; and rfid (Fig. 6, note; rectangle shape, upper portion of lower surface with circuitry, and rfid 212).

All subject matters in claims 71-73 and 75 are disclosed in claims 54-56 and 58, and therefore, rejections of the subject matters expressed in claims 71-73 and 75 are met by references and associated arguments applied to rejections of claims 54-56 and 58.

Regarding claim 101, Drabeck teaches the device according to claim 50 further comprising a transmit antenna configured to transmit microwave signals (Fig. 1, col. 2, line 61-63, col. 3, lines 53- 65, modulator diode 121 couples to antenna 102 to transmit) and a receive antenna configured to receive microwave signals (Fig. 1, col. 2, line 58-61, col. 3, lines 16-29, receiver circuit couple to antenna 102 and detector diode 111).

Claims 102-106 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Walton in view of Drabeck as applied to claims 51 and 54 above, and further in view of Sawada (5,424,250).

Regarding claim 102, Walton teaches the device according to claim 51 further comprising ; a substrate and the encapsulant (Fig. 6, encapsulant associated with plastic bar 610

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and substrate associated with assembly). But Walton in view of Drabeck does not teach a substrate comprising different material than the encapsulant.

However, Sawada teaches, in the art of semiconductor device, a substrate comprising different material than the encapsulant (col. 6, lines 4-14 and col. 9, line 36 to col. 10, line 2, substrate associated with chip 10 encapsulated by resin sheet 18a and 18b) for the purpose of providing ruggedized device. Therefore, it would have been obvious to a person skilled in the art at the time the invention was made to include a substrate comprising different material than the encapsulant in the device of Walton in view of Drabeck because Walton in view of Drabeck suggest wireless signals and Sawada teaches a substrate comprising different material than the encapsulant for the purpose of providing ruggedized device.

Regarding claims 103-14, Walton teaches the device according to claim 54 further comprising ; a substrate and the encapsulant (Fig. 6, encapsulant associated with plastic bar 610 and substrate associated with assembly). But Walton in view of Drabeck does not teach a substrate comprising different material than the encapsulant and a solid mass substantially free of any void space.

However, Sawada teaches, in the art of semiconductor device, a substrate comprising different material than the encapsulant (col. 6, lines 4-14 and col. 9, line 36 to col. 10, line 2, substrate associated with chip 10 encapsulated by resin sheet 18a and 18b) and a solid mass substantially free of any void space (col. 2, lines 34-42, pressing encapsulating member to encapsulate the chip associated with substrate) for the purpose of providing ruggedized device. Therefore, it would have been obvious to a person skilled in the art at the time the invention was made to include a substrate comprising different material than the encapsulant and a solid mass substantially free of any void space in the device of Walton in view of Drabeck because Walton in view of Drabeck suggest wireless signals and Sawada teaches a substrate comprising different material than the encapsulant and a solid mass substantially free of any void space for the purpose of providing ruggedized device.

Regarding claims 105, Walton teaches the device according to claim 54 further comprising ; a substrate and the encapsulant (Fig. 6, encapsulant associated with plastic bar 610 and

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substrate associated with assembly). But Walton in view of Drabeck does not teach a substrate and the encapsulant encapsulate an entirety of the communication circuitry and the antenna.

However, Sawada teaches, in the art of semiconductor device, a substrate and the encapsulant encapsulates chip (col. 6, lines 4-14 and col. 9, line 36 to col. 10, line 2, substrate associated with chip 10 encapsulated by resin sheet 18a and 18b) for the purpose of providing ruggedized device. Furthermore, one of ordinary skill in the art recognizes a substrate and the encapsulant encapsulates chip and a substrate and the encapsulant encapsulate an entirety of the communication circuitry and the antenna provide ruggedized device. Therefore, it would have been obvious to a person skilled in the art at the time the invention was made to include a substrate and the encapsulant encapsulate an entirety of the communication circuitry and the antenna in the device of Walton in view of Drabeck because one of ordinary skill in the art recognizes a substrate and the encapsulant encapsulate an entirety of the communication circuitry and the antenna for the purpose of providing ruggedized device.

Regarding claims 106, Walton teaches the device according to claim 66 further comprising; a substrate and the encapsulant (Fig. 6, encapsulant associated with plastic bar 610 and substrate associated with assembly). But Walton in view of Drabeck does not teach flowing a flowable encapsulant over the substrate; and curing the flowable encapsulant into a solid mass substantially free of any void space.

However, Sawada teaches, in the art of semiconductor device, flowing a flowable encapsulant over the substrate; and curing the flowable encapsulant into a solid mass substantially free of any void space (col. 1, lines 19-34, flowable encapsulate or melted resin over substrate or solid mass, col. 9, line 36 to col. 10, line 2, substrate associated with chip 10) for the purpose of providing ruggedized device. Therefore, it would have been obvious to a person skilled in the art at the time the invention was made to include flowing a flowable encapsulant over the substrate; and curing the flowable encapsulant into a solid mass substantially free of any void space in the device of Walton in view of Drabeck because Walton suggests a substrate and the encapsulant and Sawada teaches flowing a flowable encapsulant over the substrate; and curing the flowable encapsulant into a solid mass substantially free of any void space for the purpose of providing ruggedized device.

Claims 86 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Walton in view of Drabeck as applied to claims 54 above, and further in view of Odsgiri (5,801,466).

All subject matters except the power source comprises a battery; and antenna in claims 86 are disclosed in claim 54. However, Walton teaches antenna and power source (col. 4, lines 50-65, identifier antenna (214); col. 6, lines 1-53, radio frequency identifier circuit energized by varying magnetic field), and furthermore Odagiri discloses, in the art of rfid system, portable communication device with a battery coupled with the communication circuitry (col. 6, lines 41-51, power source enough to run motor within wireless environment) for the purpose of providing additional power supply. Therefore, it would have been obvious to a person at the time of invention to include a battery coupled with the communication circuitry in the device of Walton in view of Drabeck as evidenced by Odagiri because Walton in view of Drabeck suggests a passive power supply and Odagiri teaches a battery coupled with the communication circuitry (col. 6, lines 41-51, power source enough to run motor within wireless environment) for the purpose of providing additional power supply.

Claims 65 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Walton in view of Drabeck as applied to claims 82 above, and further in view of Odsgiri (5,801,466).

All subject matters except the power source comprises a battery; and antenna in claims 65 are disclosed in claim 82. However, Walton teaches antenna and power source (col. 4, lines 50-65, identifier antenna (214); col. 6, lines 1-53, radio frequency identifier circuit energized by varying magnetic field), and furthermore Odagiri discloses, in the art of rfid system, portable communication device with a battery coupled with the communication circuitry (col. 6, lines 41-51, power source enough to run motor within wireless

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environment) for the purpose of providing additional power supply. Therefore, it would have been obvious to a person at the time of invention to include a battery coupled with the communication circuitry in the device of Walton in view of Drabeck as evidenced by Odagiri because Walton in view of Drabeck suggests a passive power supply and Odagiri teaches a battery coupled with the communication circuitry (col. 6, lines 41–51, power source enough to run motor within wireless environment) for the purpose of providing additional power supply.

Claims 84, 92, 88, 94 and 96 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Walton in view of Drabeck as applied to claims 50, 59, 66, 71 and 76 above, and further in view of Odagiri (5,801,466).

Regarding claim 84, 92, 88, 94 and 96, Walton continues, as disclosed in claims 50, 59, 76, 66 and 71 and 76, to disclose passive energy supply to the communication circuitry. But Walton in view of Drabeck does not disclose a battery coupled with the communication circuitry .

However, Odagiri discloses, in the art of rfid system, portable communication device with a battery coupled with the communication circuitry (col. 6, lines 41–51, power source enough to run motor within wireless environment) for the purpose of providing additional power supply. Therefore, it would have been obvious to a person at the time of invention to include a battery coupled with the communication circuitry in the device of Walton in view of Drabeck as evidenced by Odagiri because Walton in view of Drabeck suggests a passive power supply and Odagiri teaches a battery coupled with the communication circuitry (col. 6, lines 41–51, power source enough to run

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motor within wireless environment) for the purpose of providing additional power supply.

Claims 52, 57, 62-64, 69, 74, 79 and 80-81 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Walton in view of Drabeck as applied to claims 50, 54, 66 and 71 above, and further in view of Lebby et al. (5,493,437).

Regarding claims 52, 57, 69 and 74, Walton continues, as disclosed in claims 50, 54, 66 and 71, to disclose a housing comprising thin side surface (Fig. 6, rectangular plastic housing (610)). But Walton does not disclose the housing comprises the at least one side surface has a dimension less than about 100 mills.

However, Lebby discloses, in the art of portable wireless communication device, the housing comprises the at least one side surface has a dimension less than about 100 mills (Fig. 1, casing thickness of 1 MM) to provide smaller and ruggedized structure. Therefore, it would have been obvious to a person at the time of invention to include the housing comprises one surface has a dimension less than about 100 mills in the device of Walton in view of Drabeck as evidenced by Lebby because Walton in view of Drabeck suggests a housing containing a thin side surface and Lebby teaches the housing comprises one surface has a dimension less than about 100 mills to provide smaller and ruggedized structure.

All subject matters except the housing comprises one surface have a dimension less than about 100 mills in claims 62 and 79 are disclosed in claims 50. However, Lebby discloses, in the art of portable wireless communication device, the housing comprises the at least one side surface has a dimension less than about 100 mills (Fig. 1, casing thickness of 1 MM) to provide smaller and ruggedized structure. Therefore, it would have been obvious to a person at the time of invention to include the housing comprises one surface has a dimension less than about 100 mills in the device of Walton in view of Drabeck as evidenced by Lebby because Walton in view of Drabeck suggests a housing containing a thin side surface and Lebby teaches the housing

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comprises one surface has a dimension less than about 100 mills to provide smaller and ruggedized structure. Therefore, rejections of the subject matters expressed in claims 62 and 79 are met by references and associated arguments applied to rejections of claim 50 and to rejection provided in the above the paragraph.

Regarding claim 63, Walton in continues, as disclosed in claim 62, to disclose the housing comprises an encapsulant which contacts at least portions of the support surface and the communication circuitry (Fig. 6, col. 6, lines 8-54, the assembly is encapsulated in a plastic rectangular bar (610); note antenna rod (216) and identifier circuit (212)).

Regarding claim 64, Walton in continues, as disclosed in claim 62, to disclose the device further comprising an antenna within the housing and coupled with the communication circuitry (Fig. 6, col. 6, lines 8-54, the assembly is encapsulated in a plastic rectangular bar (610); note encapsulated antenna rod (216) energizes the identifier circuit (212) and the identifier circuit is activated).

All subject matters in claims 80-81 are disclosed in claims 50 and 79, and therefore, rejections of the subject matters expressed in claims 80-81 are met by references and associated arguments applied to rejections of claims 50 and 79.

Claims 89 and 97 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Walton in view of Drabeck and Lebby et al. (5,493,437) as applied to claims 62 and 79 above, and further in view of MacLellan et al. (5,649,296).

Regarding claims 89, 97, Walton continues, as disclosed in claims 79, 62 to disclose the communication circuitry is RFID receiver. But Walton in view of Lebby does not disclose the communication circuitry is configured to implement backscatter communications.

However, MacLellan discloses, in the art of wireless communication system, the communication circuitry is configured to implement backscatter communications (col. 1, line 61



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to col. 4, line 51, backscatter modulation applies to RFID) to better comply the FCC regulatory requirement. Therefore, it would have been obvious to a person at the time of invention to include the communication circuitry is configured to implement backscatter communications in the device of Walton in view of Drabeck and Lebby as evidenced by MacLellan because Walton in view of Drabeck and Lebby suggests the communication circuitry is RFID receiver and MacLellan teaches the communication circuitry is configured to implement backscatter communications to better comply the FCC regulatory requirement.

Claims 90 and 98 are rejected under 35 U.S.C. 103(a) as being unpatentable over Walton in view of Drabeck and Lebby as applied to claims 62 and 79 above, and further in view of Odsgiri (5,801,466).

Regarding claims 90 and 98, Walton continues, as disclosed in claims 62 and 79 to disclose passive energy supply to the communication circuitry. But Walton in view of Drabeck and Lebby does not disclose a battery coupled with the communication circuitry.

However, Odagiri discloses, in the art of portable communication device a battery coupled with the communication circuitry (col. 6, lines 41-51, power source enough to run motor within wireless environment) to provide power. Therefore, it would have been obvious to a person at the time of invention to include a battery coupled with the communication circuitry in the device of Walton in view of Drabeck and Lebby as evidenced by Odagiri because Walton in view of Drabeck and Lebby suggests passive energy supply to the communication circuitry and Odagiri teaches a battery coupled with the communication circuitry (col. 6, lines 41-51, power source enough to run motor within wireless environment) for the purpose of higher transmission power.

Claims 83, 85, 91, 93, 87 and 95 are rejected under 35 .S.C. 103(a) as being unpatentable over Walton in view of Drabeck as applied to claims 50, 54, 59, 66, 71 and 76 above, and further in view of MacLellan (5,649,296) .

Regarding claims 83, 91, 93, Walton continues, as disclosed in claims 50, 59 and 66 to disclose the communication circuitry is RFID receiver. But Walton in view of Drabeck does not disclose the communication circuitry is configured to implement backscatter communications.

However, MacLellan discloses, in the art of wireless communication system, the communication circuitry is configured to implement backscatter communications (col. 1, line 61 to col. 4, line 51, backscatter modulation applies to RFID) to better comply the FCC regulatory requirement. Therefore, it would have been obvious to a person at the time of invention to include the communication circuitry is configured to implement backscatter communications in the device of Walton in view of Drabeck as evidenced by MacLellan because Walton in view of Drabeck suggests the communication circuitry is RFID receiver and MacLellan teaches the communication circuitry is configured to implement backscatter communications to better comply the FCC regulatory requirement.

Regarding claims 85, 87 and 95, Walton continues, as disclosed in claims 54, 71 and 76 to disclose the communication circuitry is pager receiver. But Walton in view of Drabeck does not disclose the communication circuitry is configured to implement backscatter communications.

However, MacLellan discloses, in the art of credit card pager system, the communication circuitry is configured to implement backscatter communications (col. 1, line 61 to col. 4, line 51, backscatter modulation applies to RFID) to better comply the FCC regulatory requirement. Therefore, it would have been obvious to a person at the time of invention to include the communication circuitry is configured to implement backscatter communications in the device of Walton in view of Drabeck as evidenced by

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MacLellan because Walton in view of Drabeck suggests the communication circuitry is radio frequency identifier device and MacLellan teaches the communication circuitry is configured to implement backscatter communications to better comply the FCC regulatory requirement.

### *Conclusion*

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

### *Contact Information*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matsuichiro Shimizu whose telephone number is (703) 306-5841. The examiner can normally be reached on Monday through Friday from 8:00 AM to 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Micheal Horabik, can be reached on (703-305-4704). The fax phone number for the organization where this application or proceeding is assigned is (703-305-3988).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703-305-8576).

Matsuichiro Shimizu

February 7, 2004

MICHAEL HORABIK  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600

